



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,537	03/14/2007	Takaichi Oya	06.23.01.P	9850
35870 7590 06/02/2008 APEX JURIS, PLLC 12360 LAKE CITY WAY NORTHEAST SUITE 410 SEATTLE, WA 98125				
EXAMINER UPTON, CHRISTOPHER				
ART UNIT		PAPER NUMBER		
1797				
MAIL DATE		DELIVERY MODE		
06/02/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/577,537

**Applicant(s)**

OYA, TAKAICHI

**Examiner**

Christopher Upton

**Art Unit**

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)
- Paper No(s)/Mail Date 4/26/2006
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

1. Claims 4, 6, 8, 13 and 15 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claims 4, 6 and 13 recite method limitations, while claims 8 and 15 are product by process claims. These claims therefore fail to limit the structure of an apparatus claim.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 8-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in view of Japanese patent 2003-225652, Cline or Hater.

Davis discloses a device comprising a cylindrical net container for retaining immobilized microorganisms and an agitator, in the form of an aerator, which may be placed in a grease trap, substantially as claimed. While Davis does not explicitly show mounting the apparatus on a support plate, it is submitted that Davis discloses the use of cables or rods attached to brackets (15) to suspend the device. Therefore, it is submitted that the lid of the grease trap would obviously form such a "support plate."

Davis also does not disclose the use of enzymes. However, it is submitted that the use of enzymes in combination with bacteria is known, as disclosed by Cline and Hater, and the use of enzymes is disclosed by the Japanese patent. It would therefore have been obvious for one of ordinary skill in the art to add enzymes to the device of Davis, to improve the treatment. With respect to claims 3 and 12, it is submitted that the sizing would have been an obvious matter of optimization for one skilled in the art, and therefore fails to patentably distinguish over the prior art.

4. Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis as applied to claims 6 and 13 above, and further in view of Weber.

Claims 7 and 14 differ from Davis in recitation of heating the grease trap. This is well known, as exemplified by Weber, and would therefore have been an obvious addition to the embodiment of Davis used in a grease trap, to keep the grease flowable.

5. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent 2992981 in view of Japanese patent 2003-225652, Cline or Hater; and Rebori or Higgins.

The 2992981 Japanese patent discloses a device comprising a cylindrical net container for retaining immobilized microorganisms and an agitator, in a grease trap, substantially as claimed. The '981 Japanese patent does not disclose the use of enzymes, or mounting the agitator and the immobilized enzyme holder on a support plate mounted on the grease trap.

It is submitted that the use of enzymes in combination with bacteria is known, as disclosed by the Cline and Hater, and the use of enzymes is disclosed by the 2003-225652 Japanese patent. It would therefore have been obvious for one of ordinary skill in the art to add enzymes to the device of the '981 Japanese patent, to improve the treatment.

It is also known to mount a support and an agitator or aerator on the cover of a treatment tank, as exemplified by Rebori and Higgins. It is therefore submitted that this alternative mounting would have been an obvious design modification for one skilled in the art, to permit easier access to the media and the mechanical portion of the device.

With respect to claims 3 and 12, it is submitted that the sizing would have been an obvious matter of optimization for one skilled in the art, and therefore fails to patentably distinguish over the prior art.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Other references of interest include Ozama, Francis, Moller, Wong, and Perez.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Upton whose telephone number is 571-272-1169. The examiner can normally be reached on 8:30-6:00, off every other Monday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher Upton/  
Primary Examiner, Art Unit 1797

Christopher Upton  
Primary Examiner  
Art Unit 1797